

Application of the Lake Okeechobee Regulation Schedule (LORS2008) on 05/23/2022 (ENSO Condition: La Niña)

Lake Okeechobee Net Inflow Outlook:

The Lake Okeechobee Net Inflow Outlook has been computed using 4 methods: Croley's method¹, the SFWMD empirical method², a sub-sampling of La Nina years³ and a sub-sampling of warm years of the Atlantic Multi-decadal Oscillation (AMO) in combination with La Nina ENSO years⁴. The results for Croley's method and the SFWMD empirical method are based on the CPC Outlook.

Table of the Lake Okeechobee Net Inflow Outlooks in feet of equivalent depth. All methods are updated on a weekly basis with observed net inflow for the current month.

Season	Croley's Method ^{1*}		SFWMD Empirical Method ²		Sub-sampling of La Nina ENSO Years ³		Sub-sampling of AMO Warm + La Nina ENSO Years ⁴	
	Value (ft)	<u>Condition</u>	Value (ft)	<u>Condition</u>	Value (ft)	<u>Condition</u>	Value (ft)	<u>Condition</u>
Current (May-Oct)	N/A	N/A	2.62	Very Wet	2.36	Very Wet	2.53	Very Wet
Multi Seasonal (May-Apr)	N/A	N/A	3.18	Wet	2.72	Wet	2.23	Normal

*Croley's Method Not Produced for This Report

See Seasonal and Multi-Seasonal tables for the classification of Lake Okeechobee Outlooks.

The recommended methods and values for estimating the Lake Okeechobee Net Inflow Outlook are shaded and should be used in the LORS2008 Release Guidance Flow Charts.

**Sub-sampling is a weighted average of ENSO conditions based on the ENSO forecast used.

Tributary Hydrologic Conditions Graph:

173 cfs 14-day running average for Lake Okeechobee Net Inflow through 05/23/2022. According to the classification in Tributary Hydrologic Conditions table, this condition is Dry.

-2.81 for Palmer Drought Index on 05/23/2022. According to the classification in Tributary Hydrologic Conditions table, this condition is Dry.

The wetter of the two conditions above is **Dry**.

LORS2008 Classification Tables:

Lake Okeechobee Stage on 05/23/2022:

Lake Okeechobee Stage: **12.70 feet**

Lake Okeechobee Management Zone/Band		Bottom Elevation (feet, NGVD)	Current Lake Stage
High Lake Management Band		16.20	
Operational Band	High sub-band	15.66	
	Intermediate sub-band	15.07	
	Low sub-band	13.10	
Base Flow sub-band		12.60	← 12.70 ft
Beneficial Use sub-band		11.45	
Water Shortage Management Band		10.63	

Part C of LORS2008: Discharge to WCAs

No releases to WCAs.

Part D of LORS2008: Discharge to Tide

Up to 450 cfs at S-79 and up to 200 cfs at S-80.

**Lake Okeechobee Releases to the Caloosahatchee Estuary
for 2008 LORS Baseflow & for Environmental Water Supply**

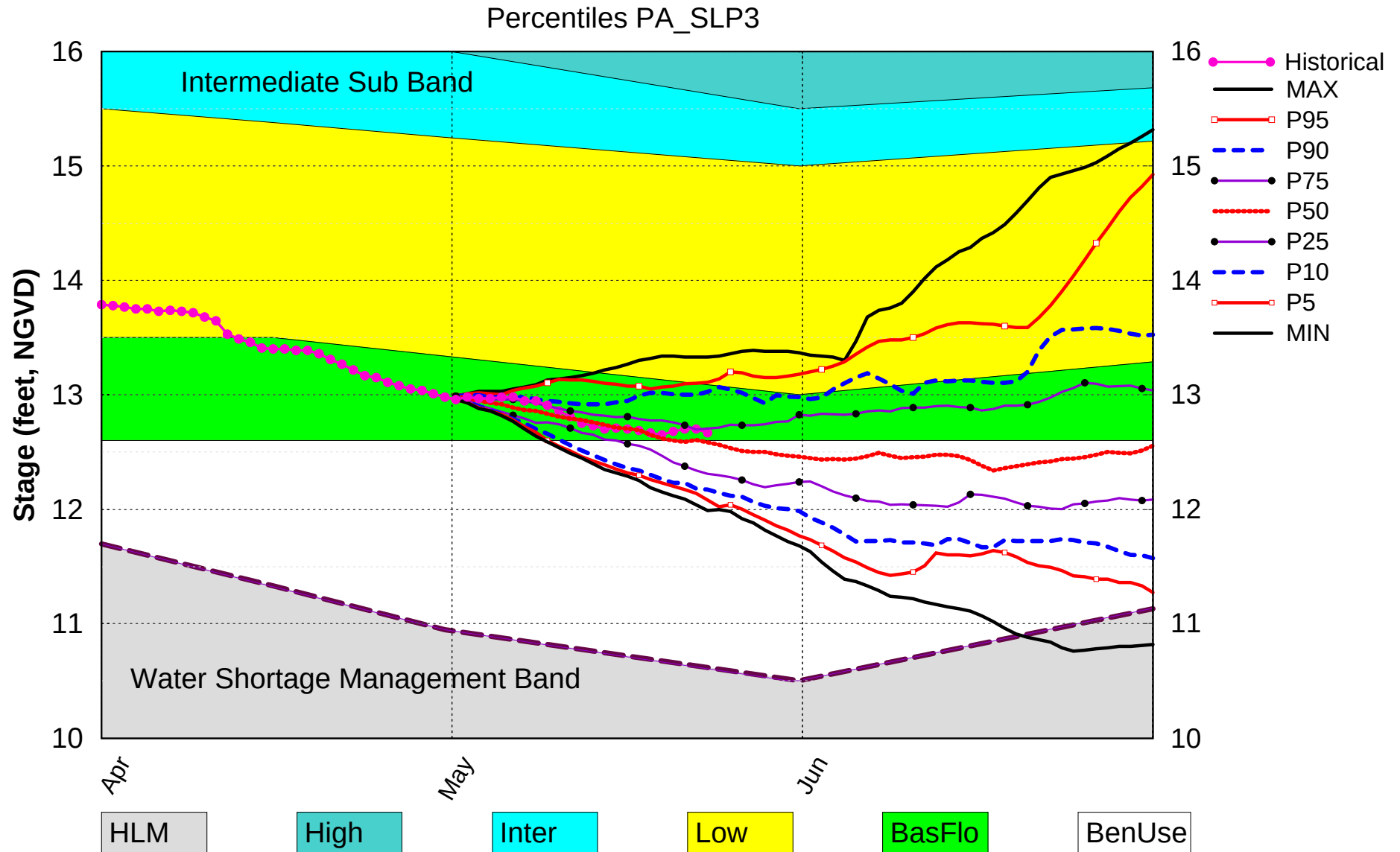
Guidance for Lake Okeechobee Releases to the Caloosahatchee Estuary indicates no S77 release to the Caloosahatchee Estuary unless the Governing Board recommends otherwise.

LORS2008 Implementation on 05/23/2022 (ENSO Condition- La Nina Watch):**Status for week ending 05/23/2022:****Water Supply Risk Evaluation**

Area	Indicator	Value	Color Coded Scoring Scheme
LOK	Projected LOK Stage for the next two months	Beneficial Use	M
	Palmer Drought Index for LOK Tributary Conditions	-2.81 (Extremely Dry)	H
	CPC Precipitation Outlook	1 month: Normal	M
		3 months: Above Normal	L
	LOK Seasonal Net Inflow Outlook	2.36 ft	L
	ENSO Forecast	Normal to extremely wet	
	LOK Multi-Seasonal Net Inflow Outlook	2.72 ft	M
	ENSO Forecast	Normal	
WCAs	WCA 1: Site 1-8C	Above Line 1 (15.70 ft)	L
	WCA 2A: Site S-11B	Line 1 – Line 2 (11.25 ft)	M
	WCA-3A: 3 Station Average (Sites 63, 64, and 65)	Line 1 - Line 2 (8.51 ft)	M
LEC	Service Area 1	Year-Round Irrigation Rule in effect	L
	Service Area 2	Year-Round Irrigation Rule in effect	L
	Service Area 3	Year-Round Irrigation Rule in effect	L

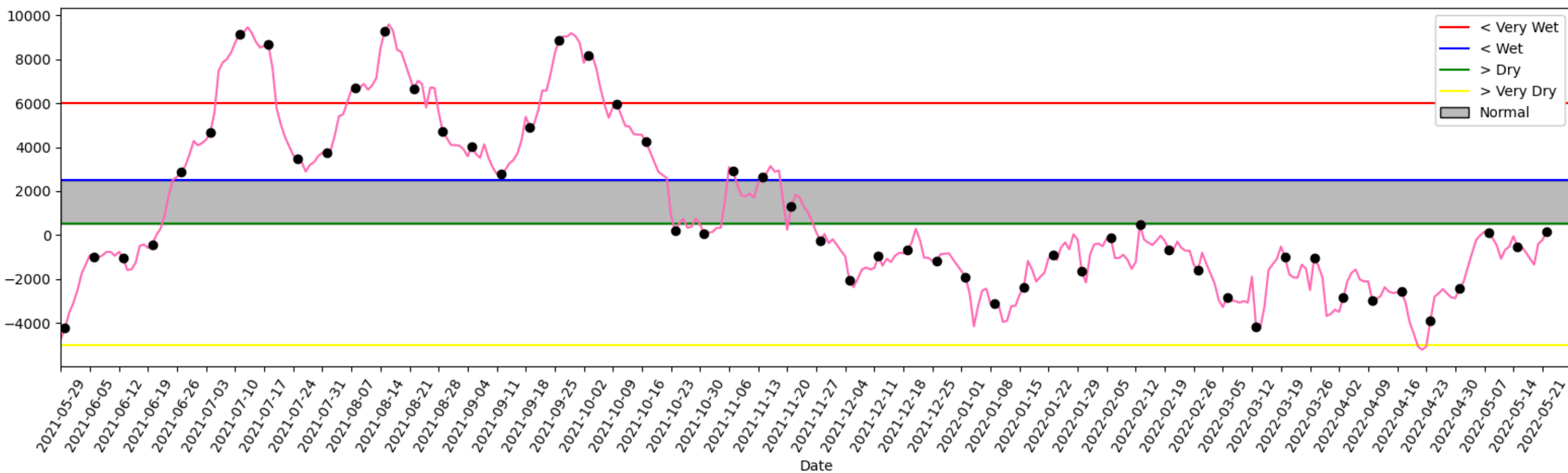
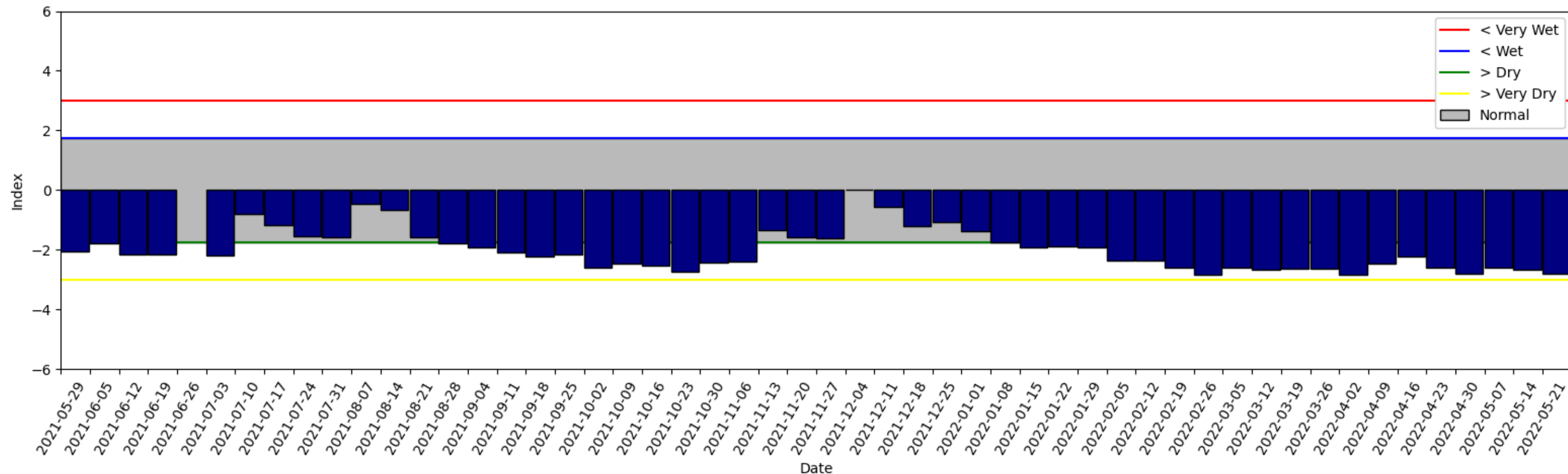
Note: The water supply risk classification based on the Palmer index, as well as the LOK seasonal and multi-seasonal net inflow outlooks use slightly different classification intervals than those used by the 2008-LORS.

Lake Okeechobee SFWMM May 2022 Position Analysis



(See assumptions on the Position Analysis Results website)

Tributary Basin Condition Indicators as of May 22 2022



2008 LORS

Part C: Establish Allowable Lake Okeechobee Releases to the Water Conservation Areas

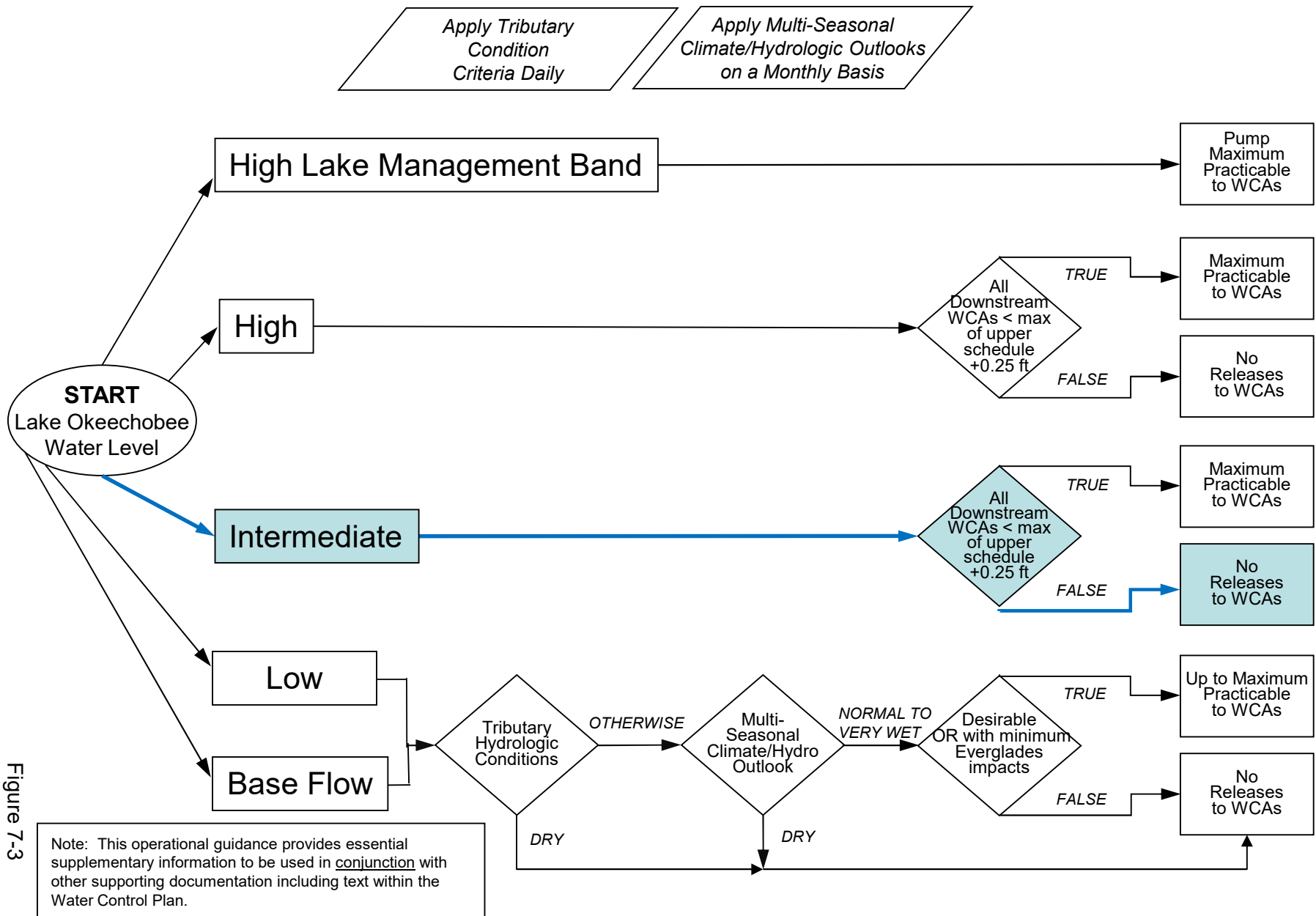
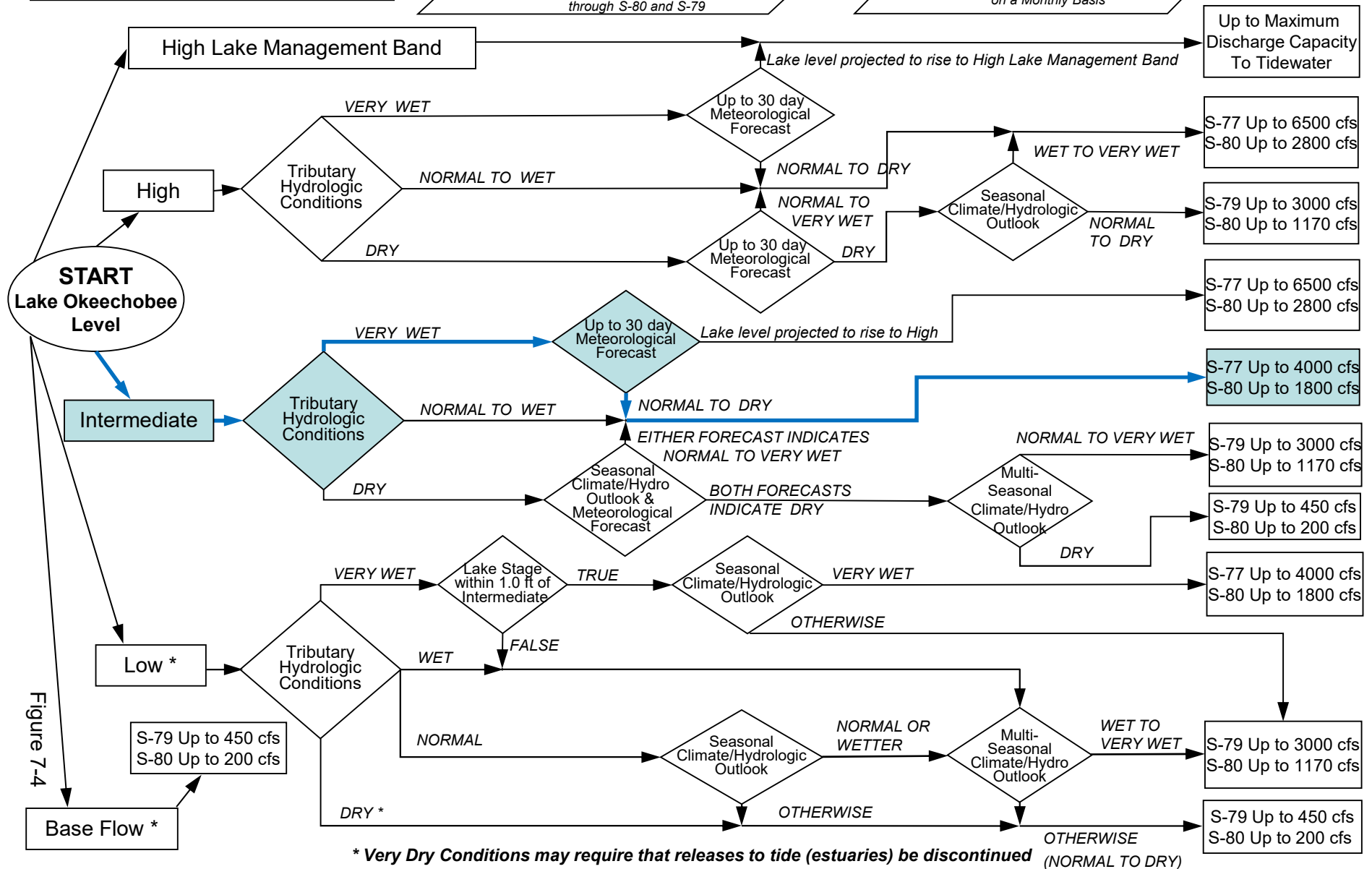


Figure 7-3

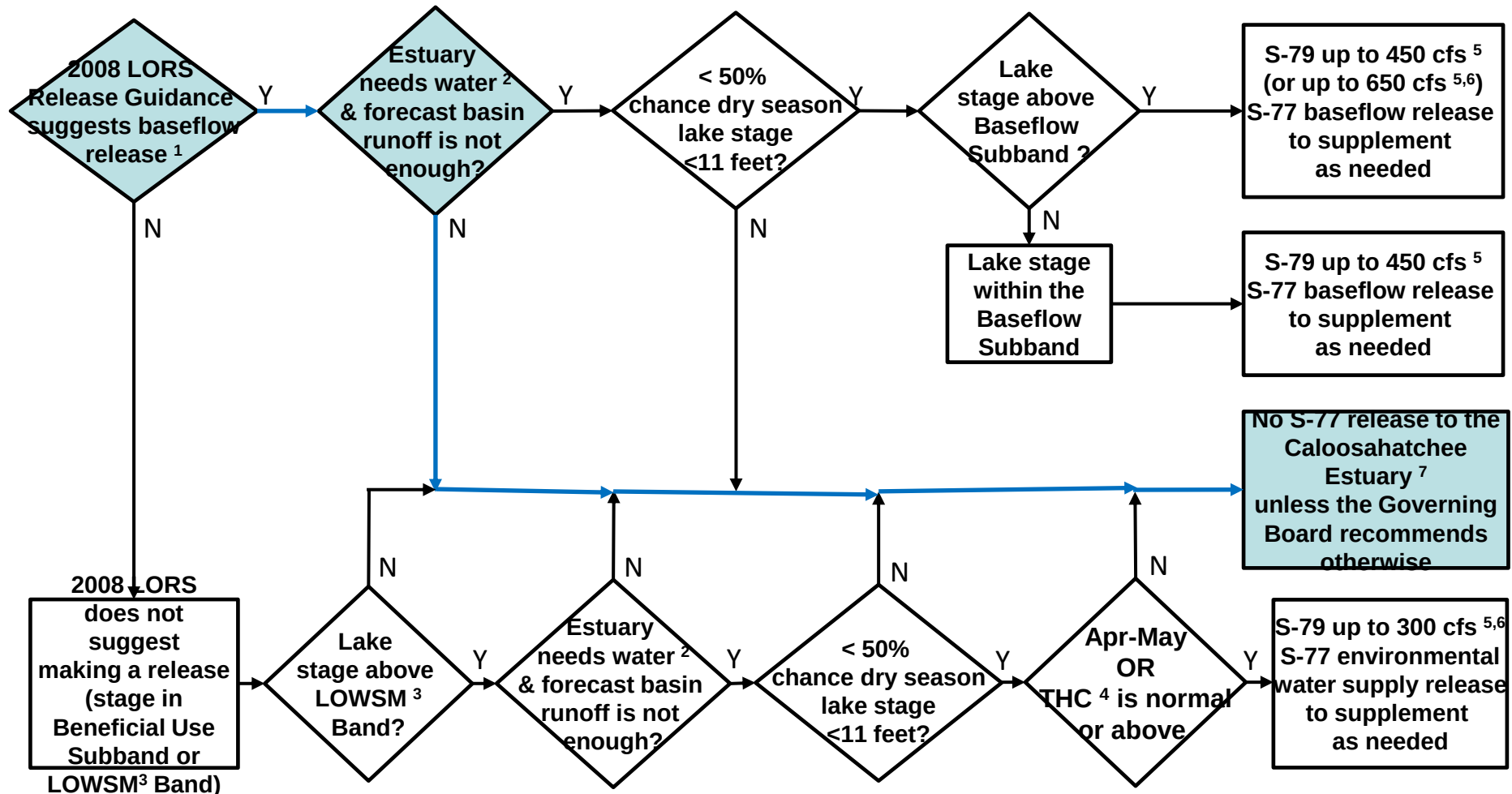
Part D: Establish Allowable Lake Okeechobee Releases to Tide (Estuaries)

*When conducting Base Flow releases,
flows can be distributed East and West
up to 650 cfs as needed
to minimize impacts or provide benefits
through S-80 and S-79*

Apply Meteorological Forecasts on a Weekly Basis; apply Seasonal and Multi-Seasonal Climate/Hydrologic Outlooks on a Monthly Basis



for 2008 LORS Baseflow & for Environmental Water Supply (revised 9-Aug-2012)



¹The 2008 LORS Release Guidance (Part D) can suggest baseflow releases in the Intermediate, Low, or Baseflow Subbands.

²Estuary “needs” water when the 30-day moving average salinity at I-75 bridge is projected to exceed 5 practical salinity units (psu) within 2 weeks.

³LOWSM = Lake Okeechobee Water Shortage Management.

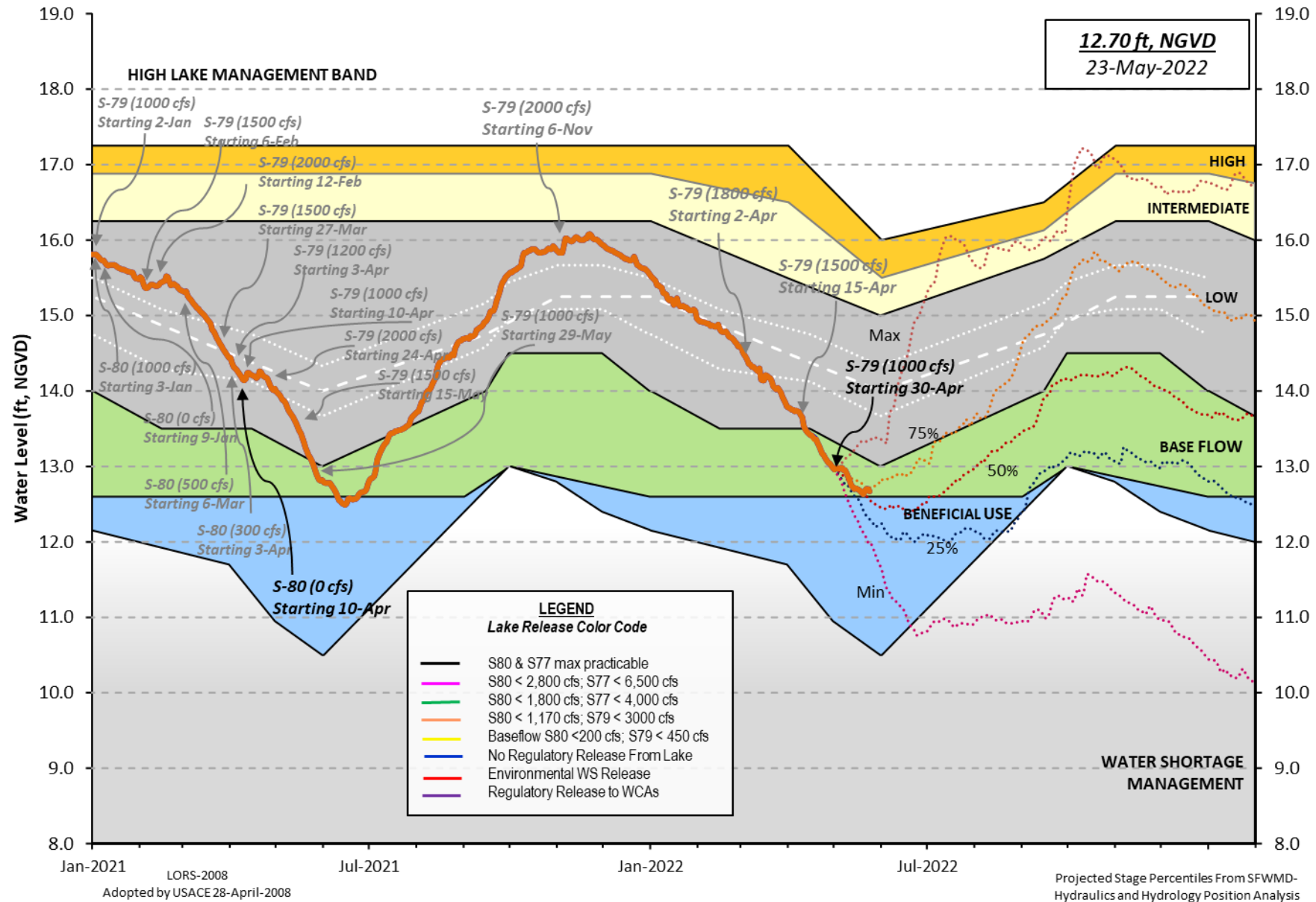
⁴Tributary Hydrologic Condition (THC) is based on classification of Lake Okeechobee Net Inflow and Palmer Index.

⁵Can release less than the “up to” limit if lower release is sufficient to reach or sustain desired estuary salinity; cfs = cubic feet per second.

⁶After reviewing conditions in Water Conservation Areas (WCAs), Stormwater Treatment Areas (STAs), ENP, St. Lucie Estuary and Lake Okeechobee.

⁷Should this condition be reached, the Governing Board will be briefed at their next regularly scheduled meeting as part of the State of the Water Resources agenda item.

Lake Okeechobee Water Level History and Projected Stages



U. S. Army Corps of Engineers, Jacksonville District
 Lake Okeechobee and Vicinity Report
 ** Preliminary Data - Subject to Revision **

Data Ending 2400 hours 22 MAY 2022

Okeechobee Lake Regulation	Elevation	Last Year	2YRS Ago
	(ft-NGVD)	(ft-NGVD)	(ft-NGVD)
*Okeechobee Lake Elevation	-NR-	13.15	11.14 (Official Elv)
Bottom of High Lake Mngmt= 16.20 Top of Water Short Mngmt= 10.63			
Currently in Water Shortage Management Band			

Simulated Average LORS2008 [1965-2000]	12.00
Difference from Average LORS2008	-NR-

22MAY (1965-2007) Period of Record Average	13.19
Difference from POR Average	-NR-

Today Lake Okeechobee elevation is determined from the 4 Int & 4 Edge stations

++Navigation Depth (Based on 2007 Channel Condition Survey) Route 1 ÷	-NR-
++Navigation Depth (Based on 2008 Channel Condition Survey) Route 2 ÷	-NR-
Bridge Clearance = 50.98'	

4 Interior and 4 Edge Okeechobee Lake Average (Avg-Daily values):

L001	L005	L006	LZ40	S4	S352	S308	S133
-NR-	-NR-	-NR-	-NR-	12.60	-NR-	12.65	-NR-

*Combination Okeechobee Avg-Daily Lake Average = -NR-
 (*See Note)

Okeechobee Inflows (cfs):

S65E	-NR-	S65EX1	-NR-	Fisheating Cr	0
S154	-NR-	S191	-NR-	S135 Pumps	-NR-
S84	-NR-	S133 Pumps	-NR-	S2 Pumps	-NR-
S84X	-NR-	S127 Pumps	-NR-	S3 Pumps	-NR-
S71	-NR-	S129 Pumps	-NR-	S4 Pumps	-NR-
S72	-NR-	S131 Pumps	-NR-	C5	0

Total Inflows: No Report Due To Missing S65E Discharge Data

Okeechobee Outflows (cfs):

S135 Culverts	-NR-	S354	-NR-	S77	578
S127 Culverts	-NR-	S351	-NR-	S308	856
S129 Culverts	-NR-	S352	-NR-		
S131 Culverts	-NR-	L8 Canal Pt	-NR-		
Total Outflows: 1434					

S3 Pumps:	_____	-NR-	-NR-	-NR-	-NR-	-NR-		(cfs)
S354:	-NR-	_____	-NR-	-NR-	-NR-			
S2 Pumps:	_____	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	(cfs)
S351:	-NR-	_____	-NR-	-NR-	-NR-	-NR-		
S352:	_____	-NR-	-NR-	-NR-	-NR-			
C10A:	-NR-	-NR-		8.0	8.0	8.0	0.0	0.0
L8 Canal PT		12.52	-NR-					

S351 and S352 Temporary Pumps/S354 Spillway

S351:	_____	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-
S352:	-NR-	_____	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-
S354:	_____	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-	-NR-

Caloosahatchee River (S77, S78, S79)

S47B:	_____	-NR-		-NR-	-NR-
S47D:	_____	-NR-	-NR-	-NR-	
S77:					

Spillway and Sector Preferred Flow:

12.66	10.92	574	0.0	0.0	3.5	0.0
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Flow Due to Lockages+: 4

S78:

Spillway and Sector Flow:

10.97	2.99	417	0.5	0.0	0.0	0.5
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Flow Due to Lockages+: 13

S79:

Spillway and Sector Flow:

3.27	2.37	1259	0.0	0.0	0.0	1.5	1.5	1.5	0.0
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0.0

Flow Due to Lockages+: 8

Percent of flow from S77 46%

Chloride (ppm) 0

St. Lucie Canal (S308, S80)

S308:

Spillway and Sector Preferred Flow:

12.61	12.52	856	3.5	3.5	3.5	3.5
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Flow Due to Lockages+: 0

S153:	_____	-NR-	-NR-	-NR-	-NR-
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S80:

Spillway and Sector Flow:

12.58	0.13	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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Flow Due to Lockages+: 24

Percent of flow from S308 NA %

Steele Point Top Salinity (mg/ml) ****

Steele Point Bottom Salinity (mg/ml) ****

Speedy Point Top Salinity (mg/ml) ****

Speedy Point Bottom Salinity (mg/ml) ****

+ Flow Due to lockages is computed utilizing average daily headwater and tailwater along with total number of lockages for the day to calculate a volume which is then converted to an average discharge in cfs.
 ++ Preferred flow is determined from either the spillway discharge or the below flow meter daily

				----- Wind -----	
Daily Precipitation Totals	1-Day	3-Day	7-Day	Direction	
Speed	(inches)	(inches)	(inches)	(Degø)	
(mph)					
S133 Pump Station:	-NR-	0.00	0.00		
S193:	-NR-	0.00	0.00	-NR-	-NR-
Okeechobee Field Station:	-NR-	0.00	0.00		
S135 Pump Station:	-NR-	0.00	0.00		
S127 Pump Station:	-NR-	0.00	0.00		
S129 Pump Station:	-NR-	0.00	0.00		
S131 Pump Station:	-NR-	0.00	0.00		
S77:	0.00	0.16	0.16	151	7
S78:	0.01	0.24	1.25	114	6
S79:	0.00	1.66	1.66	47	6
S4 Pump Station:	-NR-	0.00	0.00		
Clewiston Field Station:	-NR-	0.00	0.00		
S3 Pump Station:	-NR-	0.00	0.00		
S2 Pump Station:	-NR-	0.00	0.00		
S308:	0.00	1.21	2.15	58	4
S80:	0.00	1.11	1.11	105	2
Okeechobee Average	0.00	0.11	0.18		
(Sites S78, S79 and S80 not included)					

Oke Nexrad Basin Avg	-NR-	0.00	0.00		

Okeechobee Lake Elevations	22 MAY 2022	-NR-	Difference from
22MAY22			
22MAY22 -1 Day =	21 MAY 2022	-NR-	-NR-
22MAY22 -2 Days =	20 MAY 2022	12.65	-NR-
22MAY22 -3 Days =	19 MAY 2022	12.63	-NR-
22MAY22 -4 Days =	18 MAY 2022	12.65	-NR-
22MAY22 -5 Days =	17 MAY 2022	12.67	-NR-
22MAY22 -6 Days =	16 MAY 2022	12.69	-NR-
22MAY22 -7 Days =	15 MAY 2022	12.70	-NR-
22MAY22 -30 Days =	22 APR 2022	13.17	-NR-
22MAY22 -1 Year =	22 MAY 2021	13.15	-NR-
22MAY22 -2 Year =	22 MAY 2020	11.14	-NR-

Long Term Mean 30day Avearge ET for Lake Alfred (Inches) = -NR-

Lake Okeechobee Net Inflow (LONIN)
 Average Flow over the previous 14 days | Avg-Daily Flow

22MAY22	Today =	22 MAY 2022	-829	MON		-NR-
22MAY22	-1 Day =	21 MAY 2022	-1091	SUN		-NR-
22MAY22	-2 Days =	20 MAY 2022	-809	SAT		5340
22MAY22	-3 Days =	19 MAY 2022	-1350	FRI		-1224
22MAY22	-4 Days =	18 MAY 2022	-1082	THU		-411
22MAY22	-5 Days =	17 MAY 2022	-782	WED		-1447
22MAY22	-6 Days =	16 MAY 2022	-544	TUE		-30
22MAY22	-7 Days =	15 MAY 2022	-524	MON		-238
22MAY22	-8 Days =	14 MAY 2022	-56	SUN		4927
22MAY22	-9 Days =	13 MAY 2022	-535	SAT		-1064
22MAY22	-10 Days =	12 MAY 2022	-683	FRI		1291
22MAY22	-11 Days =	11 MAY 2022	-1077	THU		-6853
22MAY22	-12 Days =	10 MAY 2022	-467	WED		-5210
22MAY22	-13 Days =	09 MAY 2022	-148	TUE		-5026

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S65E						
Average Flow over previous 14 days				Avg-Daily Flow		
22MAY22	Today=	22 MAY 2022	1455	MON		-NR-
22MAY22	-1 Day =	21 MAY 2022	1474	SUN		-NR-
22MAY22	-2 Days =	20 MAY 2022	1494	SAT		1188
22MAY22	-3 Days =	19 MAY 2022	1518	FRI		1254
22MAY22	-4 Days =	18 MAY 2022	1558	THU		1339
22MAY22	-5 Days =	17 MAY 2022	1594	WED		1400
22MAY22	-6 Days =	16 MAY 2022	1626	TUE		1437
22MAY22	-7 Days =	15 MAY 2022	1656	MON		1486
22MAY22	-8 Days =	14 MAY 2022	1687	SUN		1436
22MAY22	-9 Days =	13 MAY 2022	1722	SAT		1492
22MAY22	-10 Days =	12 MAY 2022	1741	FRI		1551
22MAY22	-11 Days =	11 MAY 2022	1763	THU		1607
22MAY22	-12 Days =	10 MAY 2022	1780	WED		1637
22MAY22	-13 Days =	09 MAY 2022	1795	TUE		1637

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S65EX1						
Average Flow over previous 14 days				Avg-Daily Flow		
22MAY22	Today=	22 MAY 2022	0	MON		-NR-
22MAY22	-1 Day =	21 MAY 2022	0	SUN		-NR-
22MAY22	-2 Days =	20 MAY 2022	0	SAT		0
22MAY22	-3 Days =	19 MAY 2022	0	FRI		0
22MAY22	-4 Days =	18 MAY 2022	0	THU		0
22MAY22	-5 Days =	17 MAY 2022	0	WED		0
22MAY22	-6 Days =	16 MAY 2022	0	TUE		0
22MAY22	-7 Days =	15 MAY 2022	0	MON		0
22MAY22	-8 Days =	14 MAY 2022	0	SUN		0
22MAY22	-9 Days =	13 MAY 2022	0	SAT		0
22MAY22	-10 Days =	12 MAY 2022	0	FRI		0
22MAY22	-11 Days =	11 MAY 2022	0	THU		0
22MAY22	-12 Days =	10 MAY 2022	0	WED		0
22MAY22	-13 Days =	09 MAY 2022	0	TUE		0

— Lake Okeechobee Outlets Last 14 Days

			S-77	Below S-77	S-78	S-79
			Discharge	Discharge	Discharge	Discharge
			(ALL DAY)	(ALL-DAY)	(ALL DAY)	(ALL DAY)
DATE			(AC-FT)	(AC-FT)	(AC-FT)	(AC-FT)
22 MAY 2022			1145	1180	849	2504
21 MAY 2022			1136	1125	1305	2336
20 MAY 2022			1357	1330	1318	1663
19 MAY 2022			2184	2328	1325	1725
18 MAY 2022			2613	2817	1314	1712
17 MAY 2022			2699	2928	1384	1655
16 MAY 2022			1924	2071	1633	1833
15 MAY 2022			1704	1901	1839	2065
14 MAY 2022			2116	2050	1937	2260
13 MAY 2022			2435	2383	1901	1798
12 MAY 2022			2255	2245	1692	1518
11 MAY 2022			1969	1958	1302	1723
10 MAY 2022			1728	1895	1392	1931
09 MAY 2022			3578	3362	1957	2381

			S-310	S-351	S-352	S-354	L8 Canal Pt
			Discharge	Discharge	Discharge	Discharge	Discharge
			(ALL DAY)	(ALL DAY)	(ALL DAY)	(ALL DAY)	(ALL DAY)
DATE			(AC-FT)	(AC-FT)	(AC-FT)	(AC-FT)	(AC-FT)
22 MAY 2022			-98	-NR-	-NR-	-NR-	-NR-
21 MAY 2022			-131	-NR-	-NR-	-NR-	-NR-
20 MAY 2022			81	0	0	0	-NR-
19 MAY 2022			218	1141	0	0	-NR-
18 MAY 2022			230	2088	0	217	-NR-
17 MAY 2022			203	181	0	364	-NR-
16 MAY 2022			-5	62	90	0	-NR-
15 MAY 2022			57	0	15	0	-NR-
14 MAY 2022			11	517	1070	296	-NR-
13 MAY 2022			264	3017	1580	1192	-NR-
12 MAY 2022			226	3183	1520	1598	-NR-
11 MAY 2022			468	3001	1678	1503	-NR-
10 MAY 2022			630	2754	1545	1038	-NR-
09 MAY 2022			318	2221	1173	741	-NR-

			S-308	Below S-308	S-80
			Discharge	Discharge	Discharge
			(ALL DAY)	(ALL-DAY)	(ALL-DAY)
DATE			(AC-FT)	(AC-FT)	(AC-FT)
22 MAY 2022			1679	-NR-	47
21 MAY 2022			1571	-NR-	54
20 MAY 2022			1714	-NR-	37
19 MAY 2022			1772	-NR-	36
18 MAY 2022			1618	-NR-	30
17 MAY 2022			1299	-NR-	46
16 MAY 2022			1308	-NR-	49
15 MAY 2022			1377	-NR-	48
14 MAY 2022			1540	-NR-	57
13 MAY 2022			1160	-NR-	28
12 MAY 2022			1345	-NR-	39
11 MAY 2022			1469	-NR-	31
10 MAY 2022			1274	-NR-	32
09 MAY 2022			1187	-NR-	30

*** NOTE: Discharge (ALL DAY) is computed using Spillway, Sector Gate
and
Lockages Discharges from 0015 hrs to 2400 hrs.

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(I) - Flows preceded by "I" signify an instantaneous
flow computed from the single value reported for the day

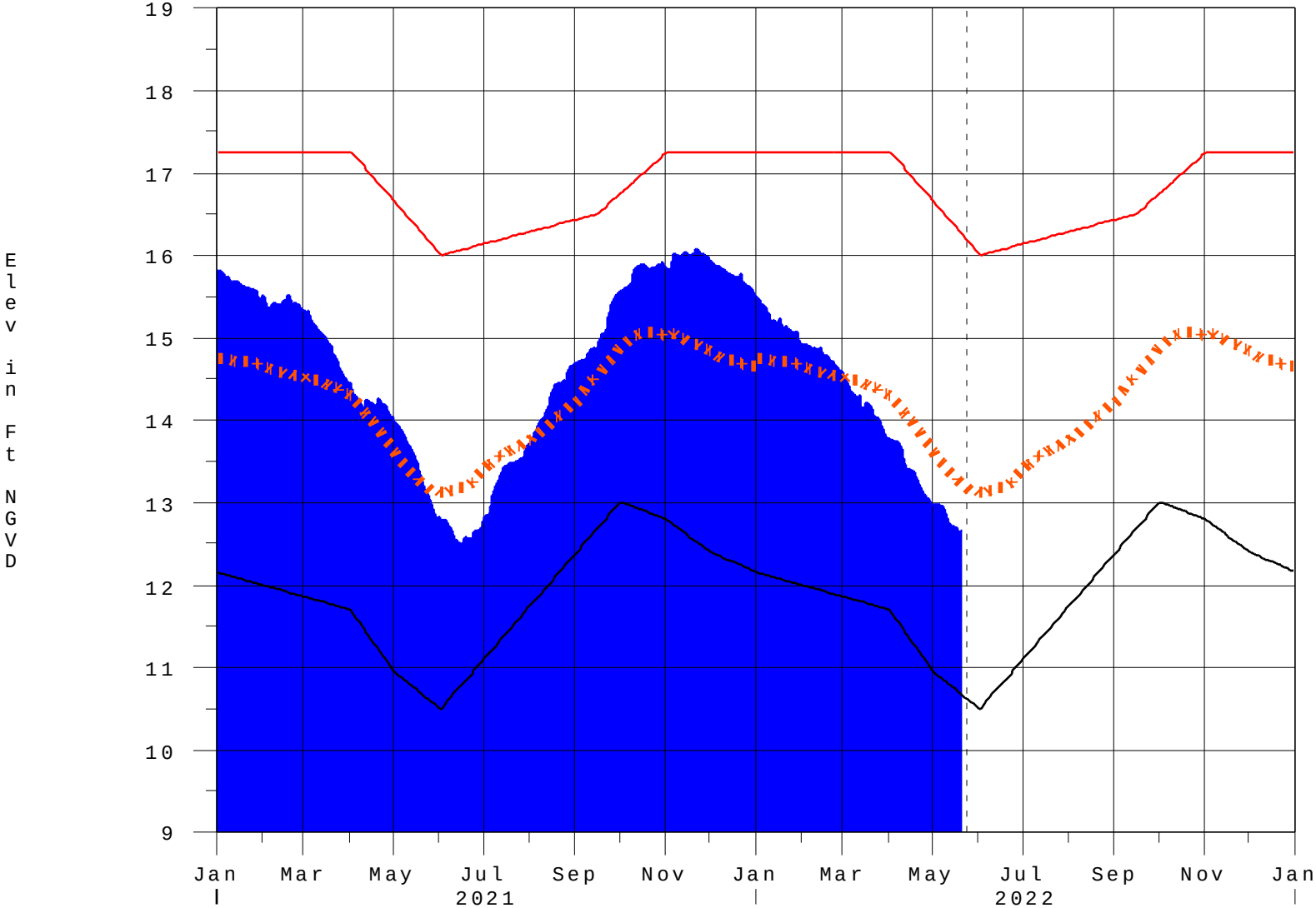
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* On 11 May 1999, Lake Okeechobee Elevation was switched from
Instantaneous 2400 value to an average-daily lake average.
On 14 Mar 2001, due to the isolation of various gages within the
standard
10 stations, the average of the interior 4 station gages was used
as the Lake Okeechobee Elevation.
On 05 November 2010, Lake Okeechobee Elevation was switched to a 9 gage
mix of interior and edge gages to obtain a more reliable representation
of the lake level.
On 09 May 2011, Lake Okeechobee Elevation was switched to a 8 gage
mix of interior and edge gages to obtain a more reliable representation
of the lake level due to isolation of S135 from low lake levels.
Today Lake Okechobee elevation is determined from the 4 Int & 4 Edge
stations
++ For more information see the Jacksonville District Navigation website
at <http://www.saj.usace.army.mil/>
\$ For information regarding Lake Okeechobee Service Area water
restrictions
please refer to www.sfwmd.gov

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Report Generated 23MAY2022 @ 10:15 ** Preliminary Data - Subject to Revision
**

Lake Okeechobee

23MAY22 10:17:22



- High Lake Management
- Okeechobee Avg Elev
- Average Elev [1965-2007]
- Water Shortage Management

Classification Tables

Supplemental Tables used in conjunction with the LORS2008 Release

Guidance Flow Charts

- [Class Limits for Tributary Hydrologic Conditions](#)

Table K-2 in the Lake Okeechobee Water Control Plan

- [6-15 Day Precipitation Outlook Categories](#)

Table ?? in the Lake Okeechobee Water Control Plan

- [Classification of Lake Okeechobee Net Inflow for Seasonal Outlook](#)

Table K-3 in the Lake Okeechobee Water Control Plan

- [Classification of Lake Okeechobee Net Inflow for Multi-Seasonal Outlook](#)

Table K-4 in the Lake Okeechobee Water Control Plan

[**Back to Lake Okeechobee Operations Main Page**](#)

[**Back to U.S. Army Corps of Engineers Lake Okeechobee Operations Homepage**](#)

Tributary Hydrologic Classification*	Palmer Index Class Limits	2-wk Mean L.O. Net Inflow Class Limits
Very Wet	3.0 or greater	Greater $\geq$ 6000 cfs
Wet	1.5 to 2.99	2500 - 5999 cfs
Near Normal	-1.49 to 1.49	500 - 2499 cfs
Dry	-2.99 to -1.5	-5000 – 500 cfs
Very Dry	-3.0 or less	Less than -5000 cfs

* use the wettest of the two indicators

Classification of Lake Okeechobee Net Inflow Seasonal Outlook*

Lake Net Inflow Prediction [million acre-feet]	Equivalent Depth** [feet]	Lake Okeechobee Net Inflow Seasonal Outlook
> 0.93	> 2.0	Very Wet
0.71 to 0.93	1.51 to 2.0	Wet
0.35 to 0.70	0.75 to 1.5	Normal
< 0.35	< 0.75	Dry

****Volume-depth conversion based on average lake surface area of 467,000 acres**

Classification of Lake Okeechobee Net Inflow Multi-Seasonal Outlook*

Lake Net Inflow Prediction [million acre-feet]	Equivalent Depth** [feet]	Lake Okeechobee Net Inflow Multi-Seasonal Outlook
> 2.0	> 4.3	Very Wet
1.18 to 2.0	2.51 to 4.3	Wet
0.5 to 1.17	1.1 to 2.5	Normal
< 0.5	< 1.1	Dry

****Volume-depth conversion based on average lake surface area of 467,000 acres**

6-15 Day Precipitation Outlook Categories*

6-15 Day Precipitation Outlook Categories	WSE Decision Tree Categories
Above Normal	Wet to Very Wet
Normal	Normal
Below Normal	Dry

*** Corresponds to Table 7-6 in the Lake Okeechobee Water Control Plan**